P. 01

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Tel: (781) 890-5678 Fax: (781) 890-1150 e-mail: admin@iandiorio.com web: www.iandiorio.com

# IANDIORIO & TESKA

INTELLECTUAL PROPERTY LAW ATTORNEYS

260 BEAR HILL ROAD

WALTHAM, MASSACHUSETTS 02451-1018

Joseph S. Iandiorio Kirk Teska Jason D. Shanske Thomas E. Thompkins, Jr. Roy J. Coleman R. Stephen Rosenholm David W. Poirier

## FACSIMILE MESSAGE

DATE:

January 29, 2004

APPLICATION SERIAL NO. 09/770,319

(DOCKET NO.: MIT-116J)

TO:

**Examiner Saint-Surin** 

OF:

USPTO (Group Art Unit 2856)

FAX NO.:

703-308-5403

FROM:

David W. Poirier

NO. OF PAGES (including this cover sheet): 5

**Examiner Saint-Surin:** 

Please find attached a list of proposed amendments to the subject patent application.

If you have any questions or comments, please do not hesitate to contact us.

David W. Poirier (Reg. No. 43,007)

If you have any problem receiving this transmission, please call us at (781) 890-5678.

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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No: 09/770,319

Applicant: Shi-Chang Wooh

Confirm. No: 7522 Group:

2856

Filed:

January 26, 2001

Examiner:

Saint-Surin, J.

Docket No:

MIT-116J

For:

FLAW DETECTION SYSTEM USING ACOUSTIC DOPPLER EFFECT

#### By Facsimile 703-308-5403

Examiner Saint-Surin Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

#### Dear Examiner Saint-Surin:

Please find attached a copy of proposed amendments that Applicant asserts would place the application in condition for allowance. Please call me at the number below if you have any questions or would like to discuss the proposed amendments.

Respectfully submitted,

David W. Poirier

Reg. No. 43,007

Tel: 781-890-5678

### PROPOSED AMENDMENTS FOR PATENT APPLICATION NO. 09/770.319

22. (Currently Amended) A flaw detection system using acoustic Doppler effect for detecting flaws in a medium wherein there is relative motion between the medium and system comprising:

air-coupled transducer means, spaced from the medium to be inspected, which transmit optical energy for introducing to and sensing receiving from the medium an acoustic signal that propagates in said medium at a predetermined frequency; and

means, responsive to the sensed propagating acoustic signal, for detecting in the sensed acoustic signal the Doppler shifted frequency representative of a flaw in the medium.

- 23. (Currently Amended) The flaw detection system using acoustic Doppler effect of claim 22 in which said transducer means includes a laser for transmitting said optical energy.
- 24. (Currently Amended) A flaw detection system using acoustic Doppler effect for detecting flaws in a medium wherein there is relative motion between the medium and system comprising:

air-coupled transducer means, spaced from the medium to be inspected, for introducing to and sensing from the medium an acoustic signal that propagates in said medium at a predetermined frequency said transducer means including a laser vibrometer interferometer an acoustic receiver for sensing the acoustic signal propagating in the medium and a transmitter that transmits optical energy.

25. (Currently Amended) A flaw detection system using acoustic Doppler effect for detecting flaws in a medium wherein there is relative motion between the medium and system comprising:

air-coupled transducer means, spaced from the medium to be inspected, for inducing an acoustic signal to propagate in the medium at a predetermined frequency and sensing receiving the propagating acoustic signal in the medium; and said transducer means including a transmitter and a receiver and said transmitter including a laser for locally heating the medium to generate acoustic signals; and

means, responsive to the sensed propagating acoustic signal, for distinguishing the Doppler shifted frequency representative of a flaw in the medium.

26. (Currently Amended) A flaw detection system using acoustic Doppler effect for detecting flaws in a medium wherein there is relative motion between the medium and system comprising:

an air-coupled transducer, spaced from the medium to be inspected, that transmits optical energy for introducing to and sensing receiving from the medium an acoustic signal that propagates in said medium at a predetermined frequency; and

a detector, responsive to the sensed propagating acoustic signal, that detects in the sensed acoustic signal the Doppler shifted frequency representative of a flaw in the medium.

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28. (Currently Amended) A flaw detection system using acoustic Doppler effect for detecting flaws in a medium wherein there is relative motion between the medium and system, comprising:

an air-coupled transducer, spaced from the medium to be inspected, that introduces to and senses from the medium an acoustic signal that propagates in said medium at a predetermined frequency, said transducer including a laser vibrometer interferometer an acoustic receiver that senses the acoustic signal propagating in the medium and a transmitter that transmits optical energy.

29. (Currently Amended) A flaw detection system using acoustic Doppler effect for detecting flaws in a medium wherein there is relative motion between the medium and system, comprising:

an air-coupled transducer, spaced from the medium to be inspected, that induces an acoustic signal to propagate in the medium at a predetermined frequency and senses receives the propagating acoustic signal in the medium, said transducer including a transmitter and a receiver, said transmitter including a laser that locally heats the medium to generate acoustic signals; and

means, responsive to the sensed propagating acoustic signal, for distinguishing the Doppler shifted frequency representative of a flaw in the medium.